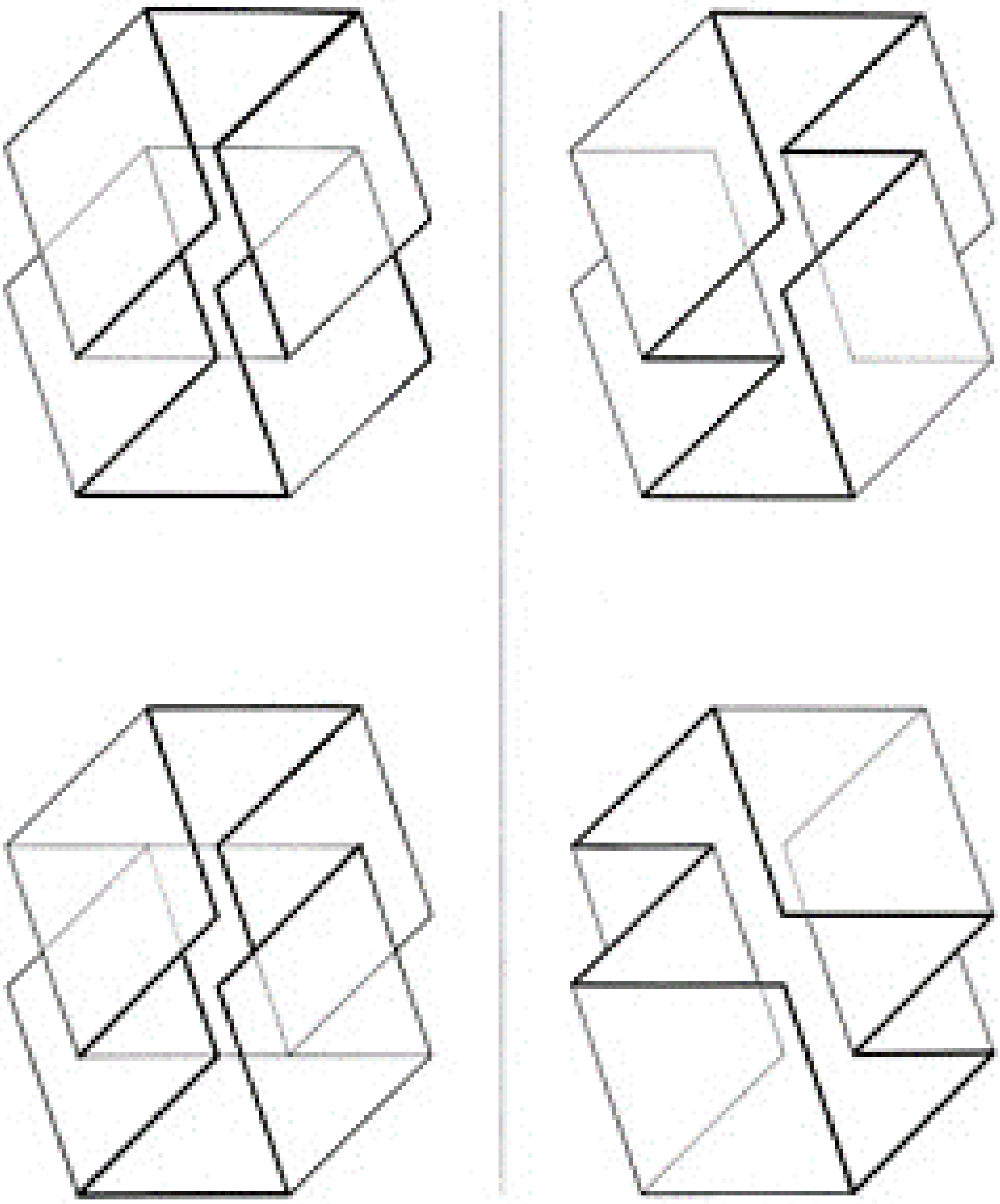
Lesson 2: Linework:

A Graphic Language expressed by LINEWEIGHT & LINETYPE



Josef Albers, Structural Constellation, c. 1955

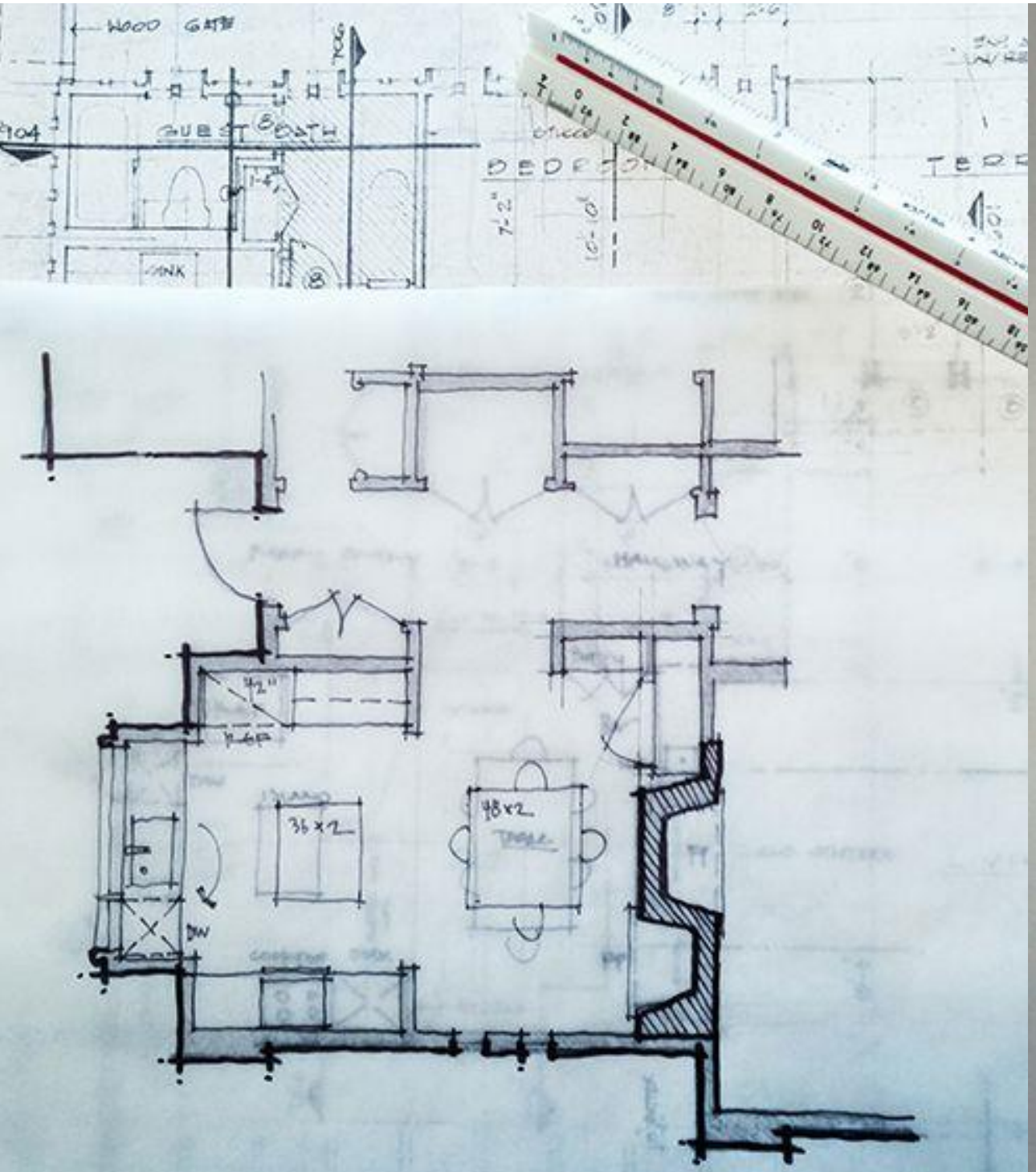
CONSTRUCTION LINES & GUIDELINES

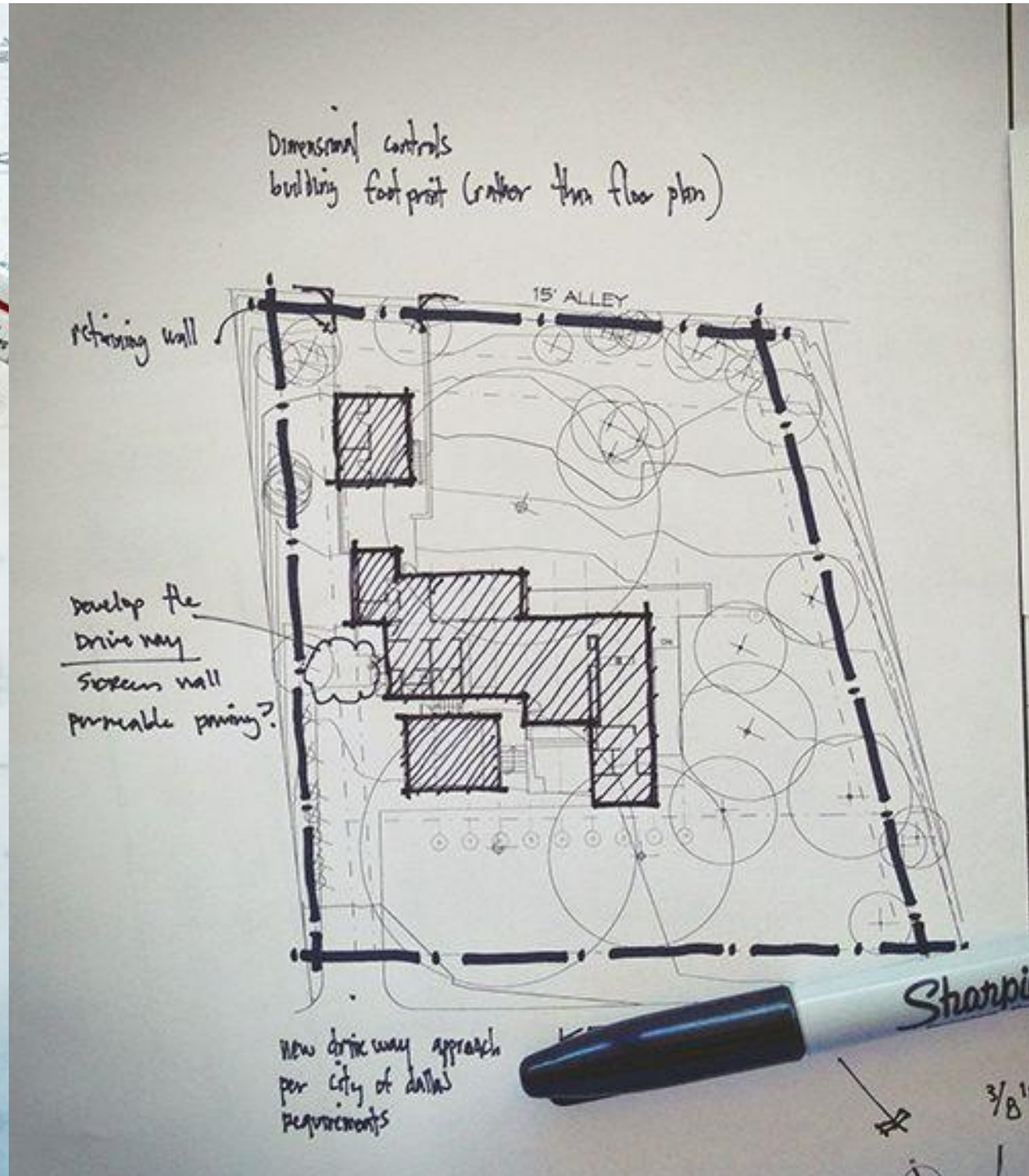
WHY do we use LINEWEIGHT?

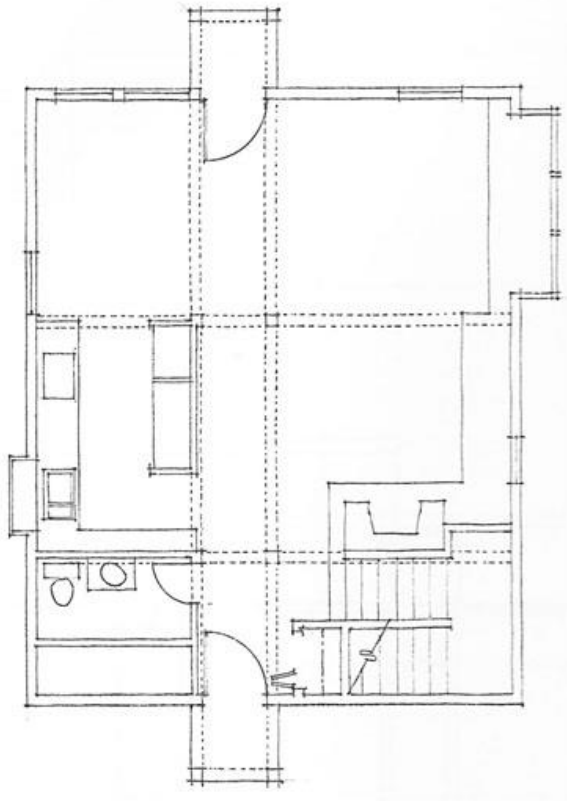
DaVinci: Perspective

CONSTRUCTION LINES & GUIDELINES

HOW do we use LINEWEIGHT?



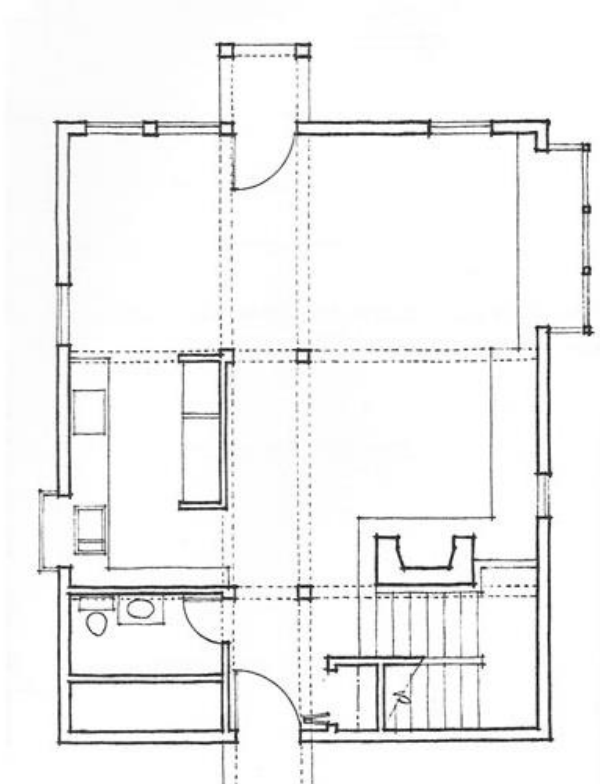


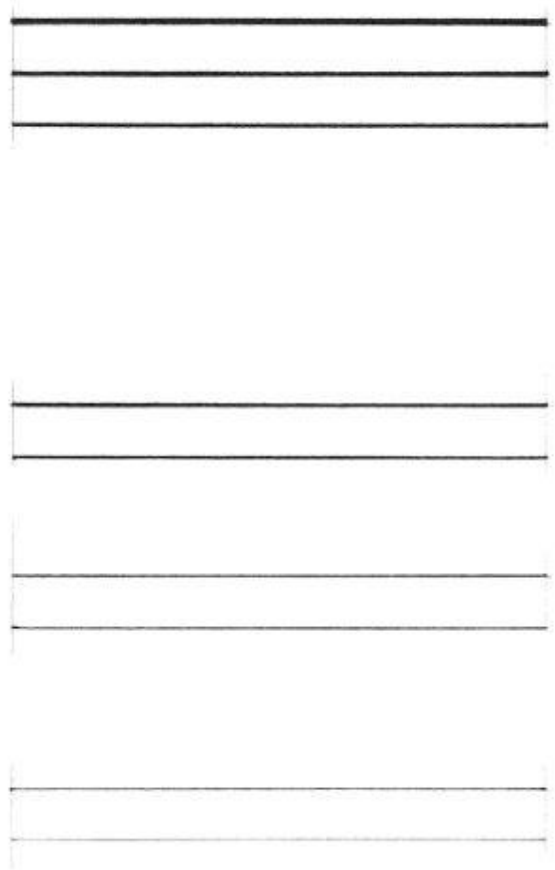


Single lineweight

LINEWEIGHT – VISUAL LIGHTNESS / DARKNESS & WIDTH OF A LINE. ADDS VISUAL LEGIBILITY & HEIRARCHY TO A DRAWING.

A LEGIBLE DRAWING CONTAINS 3-4 **VARIATIONS** OF LINEWEIGHT. **UNIFORMITY** & **CONSISTANCY** ARE KEY!





Heavy

- Heavy solid lines are used to delineate the profiles of plan and section cuts (see pages 54 and 71) as well as spatial edges (see page 99).
- Use H, F, HB, or B leads; pressing too hard to draw a bold line indicates that you are using too hard of a lead.
- Use a lead holder or draw a series of closely spaced lines with a 0.3 mm or 0.5 mm mechanical pencil; avoid using a 0.7 mm or 0.9 mm pencil for drawing heavy line weights.

Medium

- Medium-weight solid lines indicate the edges and intersections of planes.
- Use H, F, or HB leads.

Light

- Lightweight solid lines suggest a change in material, color, or texture, without a change in the form of an object.
- Use 2H, H, or F leads.

Very Light

- Very light solid lines are used to lay out drawings, establish organizing grids, and indicate surface textures.
- Use 4H, 2H, H, or F leads.

LINEWEIGHT

EXTRA FINE

FINE

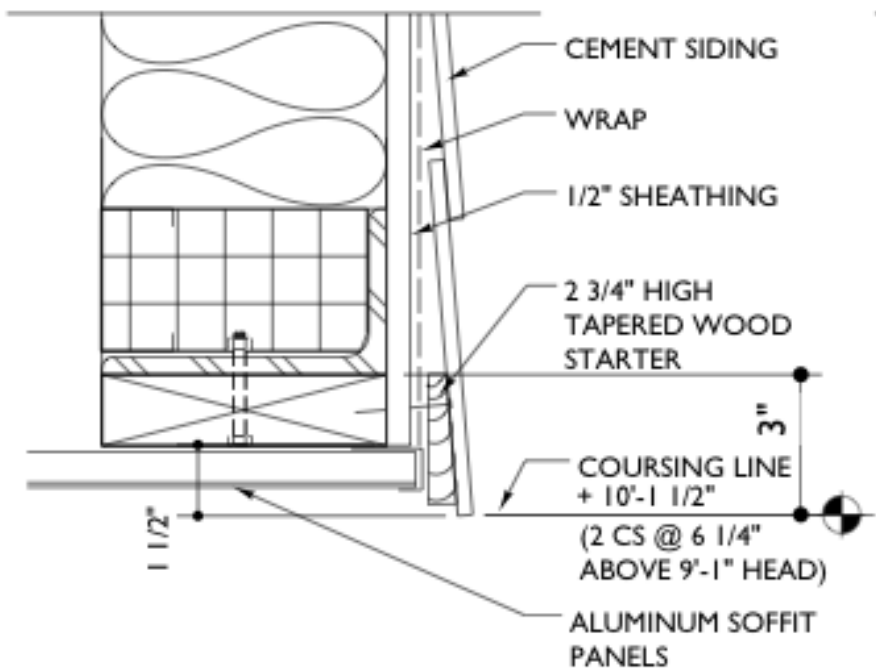
NORMAL

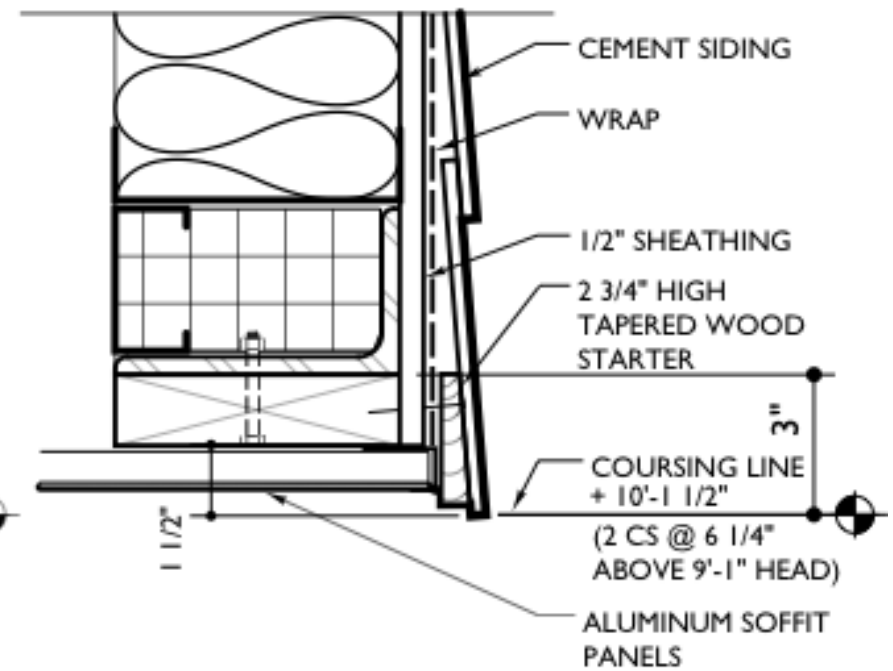
HEAVY

EXTRA HEAVY

The viewer should be able to distinguish between your linetypes
when viewing your drawing at arms length.

WHAT DIFFERENCE DOES IT MAKE?





LINEWEIGHT:

PENCIL GRADE & USE

HARD LEAD

SOFT LEAD

4H / 2H: LIGHT, HARD LEAD

- GUIDELINES
- WILL PRODUCE UN-ERASABLE GROOVE IN PAPER IF TOO MUCH PRESSURE IS APPLIED
- FINE HATCHES

H / F: MEDIUM LIGHT, FINE POINT

- SMALL LETTERING, BODY TEXT
- DETAILS
- MATERIAL HATCHES

HB: MEDIUM DARK

-TITLES, LARGE LETTERING
-OBJECT OUTLINES

B: DARK, SOFT LEAD

-BORDERS, SECTION CUTS

LINETYPES

THIN LINE:

- EDGES IN VIEW
- SURFACE FEATURES

NORMAL LINE:

- WALLS IN PLAN
- PRINCIPAL ELEMENTS
- LEADERS
- DIMENSION LINES

HEAVY LINE:

- FINISH GRADE
- ELEMENTS CUT IN SECTION

CENTERLINE:

- BUILDING CONTROL LINES
- COLUMN CENTERLINES

HIDDEN LINE:
(OBJECT NOT SEEN **IN FRONT OF** THE VISION PLANE)

- HIDDEN ELEMENTS
- FOOTINGS

OVERHEAD LINE:
(OBJECT NOT SEEN **BEHIND** THE VISION PLANE)

- OVERHANGS
- CABINETS
- CEILING FEATURES

PROPERTY LINE:

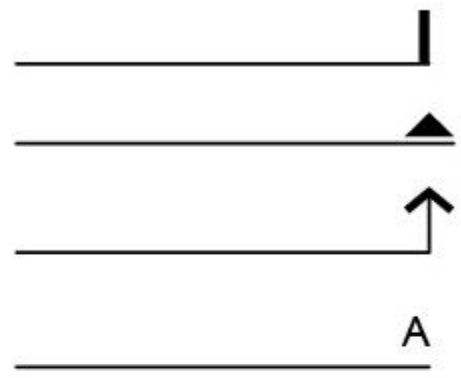
- PROPERTY LINES
- BUILDING CONTROL LINES

MATCH LINE:

MATCH LINE - SEE SHEET A204
MATCH LINE - SEE SHEET A205

USED TO DIVIDE A DRAWING INTO AREAS
WHEN DRAWING SIZE EXCEEDS SHEET SIZE

SECTION LINES



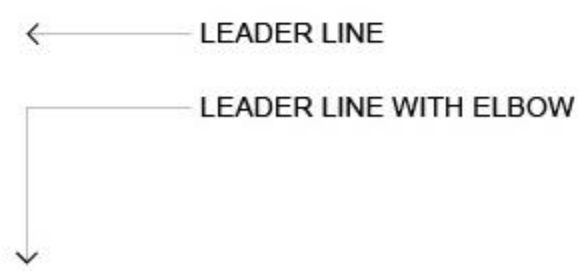
DIMENSION LINES

BREAK LINE

MOVEMENT / PHANTOM LINE

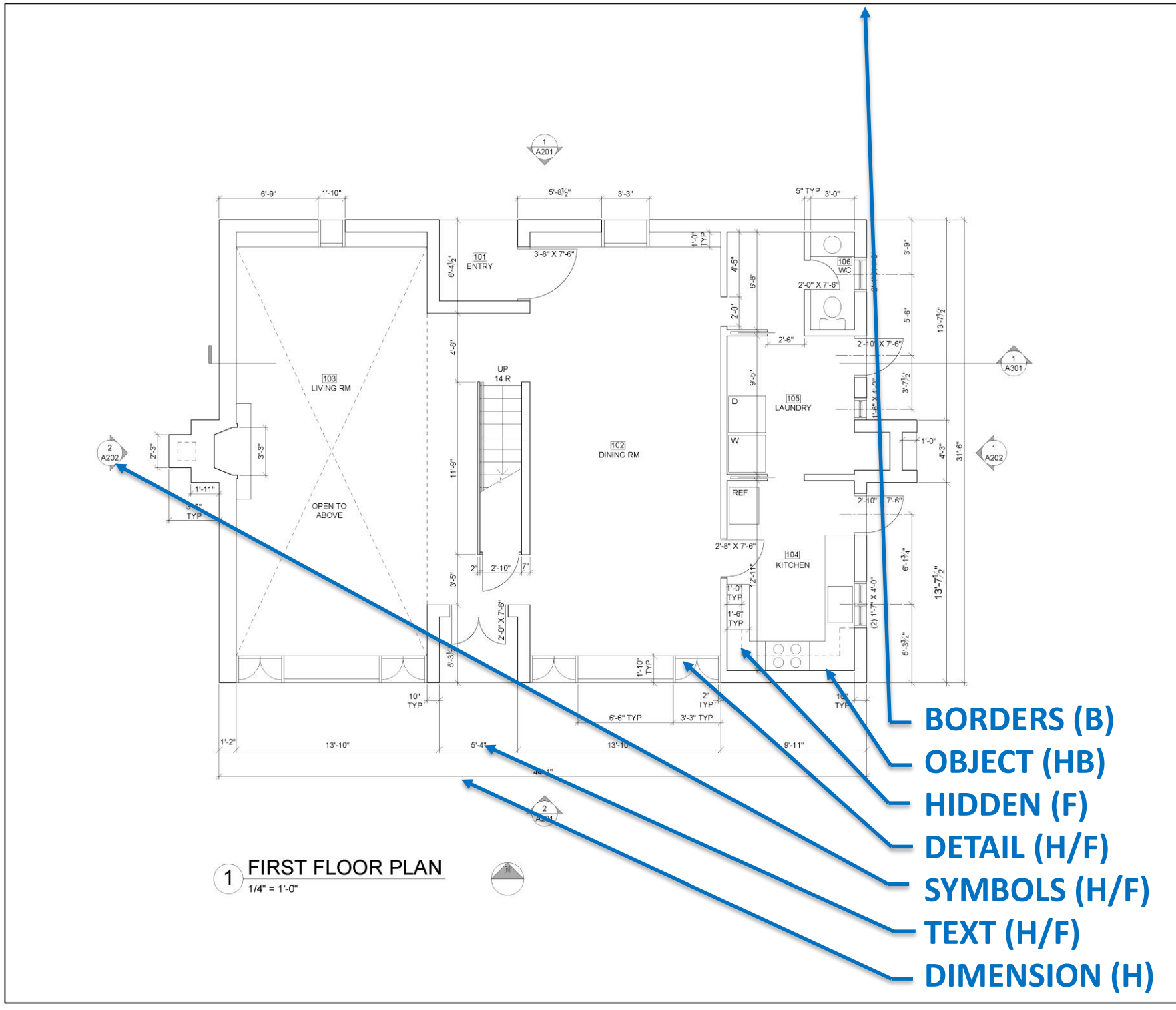
CENTER LINE

DASHED LINE



LINEWEIGHT & LINETYPES:

PLAN APPLICATION



SYMBOLS:

- ROOM ID (000 ROOM NAME)
- ELEVATION (2 / A202)
- SECTION (2 / A202)
- DOOR ID (000.0)
- WINDOW ID (0)
- ELEVATION HEIGHT (ROOF + 19'-10")
- REVISION ID (00)

ABBREVIATIONS:

ABV	ABOVE
AFF	ABOVE FINISH FLOOR
BLDG	BUILDING
℄	CENTER LINE
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
DEMO	DEMOLISH
DT	DETAIL
DWG	DRAWING
ELEV	ELEVATION
EQ	EQUAL
GWB	GYPSUM WALL BOARD
MTD	MOUNTED
NTS	NOT TO SCALE
OC	ON CENTER
TYP	TYPICAL
VIF	VERIFY IN FIELD
W/	WITH

EXTRA CREDIT!

MATERIALS & LINETYPES:

- CMU — F, 1/8"x1/8" @45°
- STEEL — F, 1/4", 1/8" @45°
- OBJECT LINE — HB, 45°
- HIDDEN LINE — F, 1/8" DASH SPACED 1/16"
- CONCRETE — F
- BRICK — F, 45°
- DETAIL LINE — F, 30°
- CENTER LINE — H, ALTERNATE LONG (3/4") ? SHORT (1/8") SPACED 1/16"
- GWB — HB
- RIGID INSULATION — F, 1/8"x1/8"
- DIMENSION LINE — H, 60°
- SECTION LINE — B, LONG (3/4") TWO SHORT (1/8") SPACED 1/16"

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NOTES:

NEW YORK CITY COLLEGE OF TECHNOLOGY

DRAWN BY: NAME

DATE:

SCALE:

SYMBOLS, MATERIALS & ABBREVIATIONS

A-001